

12-28-01

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Please type a plus sign (+) inside this box → ☐PTO/SB/05 (03-01)  
Approved for use through 10/31/2002 OMB 0651-0032

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**UTILITY  
PATENT APPLICATION  
TRANSMITTAL**

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No. 11321-P011C1D8

First Inventor Daniel T. COLBERT

Title Method for Growing Continuous Carbon Fiber and Compositions Thereof

Express Mail Label No. EL765760000US

**APPLICATION ELEMENTS**

See MPEP chapter 600 concerning utility patent application contents.

1. ☒ Fee Transmittal Form (e.g., PTO/SB/17)  
(Submit an original and a duplicate for fee processing)
2. ☒ Applicant claims small entity status.  
See 37 CFR 1.27.
3. ☒ Specification [Total Pages 58]  
(preferred arrangement set forth below)
- Descriptive title of the invention
  - Cross Reference to Related Applications
  - Statement Regarding Fed sponsored R & D
  - Reference to sequence listing, a table, or a computer program listing appendix
  - Background of the Invention
  - Brief Summary of the Invention
  - Brief Description of the Drawings (if filed)
  - Detailed Description
  - Claim(s)
  - Abstract of the Disclosure
4. ☒ Drawing(s) (35 U.S.C. 113) [Total Sheets 14]
5. Oath or Declaration [Total Pages 6]
- a. ☐ Newly executed (original or copy)  
Copy from a prior application (37 CFR 1.63 (d))  
(for continuation/divisional with Box 18 completed)
- b. ☒ **DELETION OF INVENTOR(S)**  
Signed statement attached deleting inventor(s)  
named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b)
- i. ☐
6. ☒ Application Data Sheet. See 37 CFR 1.76

ADDRESS TO: Assistant Commissioner for Patents  
Box Patent Application  
Washington, DC 20231

7. ☐ CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix)
8. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)
- a. ☐ Computer Readable Form (CRF)
- b. Specification Sequence Listing on:
- i. ☐ CD-ROM or CD-R (2 copies); or
- ii. ☐ paper
- c. ☐ Statements verifying identity of above copies

**ACCOMPANYING APPLICATION PARTS**

9. ☐ Assignment Papers (cover sheet & document(s))
10. ☐ 37 CFR 3.73(b) Statement of Power of Attorney (when there is an assignee)
11. ☐ English Translation Document (if applicable)
12. ☐ Information Disclosure Statement (IDS)/PTO-1449
13. ☒ Preliminary Amendment
14. ☒ Return Receipt Postcard (MPEP 503) (Should be specifically itemized)
15. ☐ Certified Copy of Priority Document(s) (if foreign priority is claimed)
16. ☐ Nonpublication Request under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent.
17. ☒ Other: Check for filing fees

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76:

☐ Continuation ☒ Divisional ☐ Continuation-in-part (CIP)

of prior application No. 10 / 000,746

Prior application information:

Examiner Jack I. Berman

Group Art Unit 2881

For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

**19. CORRESPONDENCE ADDRESS**☐ Customer Number or Bar Code Label

(Insert Customer No. or Attach bar code label here)

or ☒ Correspondence address below

Name	Winstead Sechrest & Minick, P.C.				
Address	2400 Bank One Center				
	910 Travis Street				
City	Houston	State	TX	Zip Code	77002
Country	US	Telephone	713-650-2714	Fax	713-650-2400

Name (Print/Type)	Hugh R. Kress, Esq.	Registration No. (Attorney/Agent)	36,574
Signature	Hugh R. Kress	Date	21-DEC-2001

Burden Hour Statement. This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Box Patent Application, Washington, DC 20231.

# PATENT APPLICATION FEE DETERMINATION RECORD

Application or Docket Number

11321-P011C1D8

## CLAIMS AS FILED - PART I

(Column 1)

(Column 2)

SMALL ENTITY

OR

OTHER THAN  
SMALL ENTITY

FOR	NUMBER FILED	NUMBER EXTRA
BASIC FEE (37 CFR 1.16(a))		
TOTAL CLAIMS (37 CFR 1.16(c))	10 minus 20 = *	0
INDEPENDENT CLAIMS (37 CFR 1.16(b))	3 minus 3 = *	0
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(d))		

RATE	FEE
	\$ 370
x \$ 9 =	0.00
x 42 =	0.00
+ =	
TOTAL	370.00

RATE	FEE
	\$
x \$ =	0.00
x =	
+ =	
TOTAL	0.00

\* If the difference in column 1 is less than zero, enter "0" in column 2

## CLAIMS AS AMENDED - PART II

(Column 1)

(Column 2)

(Column 3)

SMALL ENTITY

OR

OTHER THAN  
SMALL ENTITY

AMENDMENT A	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
Total (37 CFR 1.16(c))	*	Minus **	=
Independent (37 CFR 1.16(b))	*	Minus ***	=
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(d))			

RATE	ADDI-TIONAL FEE
x \$ =	
x =	
+ =	
TOTAL	
ADDIT. FEE	

RATE	ADDI-TIONAL FEE
x \$ =	
x =	
+ =	
TOTAL	
ADDIT. FEE	

AMENDMENT B	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
Total (37 CFR 1.16(c))	*	Minus **	=
Independent (37 CFR 1.16(b))	*	Minus ***	=
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(d))			

RATE	ADDI-TIONAL FEE
x \$ =	
x =	
+ =	
TOTAL	
ADDIT. FEE	

RATE	ADDI-TIONAL FEE
x \$ =	
x =	
+ =	
TOTAL	
ADDIT. FEE	

AMENDMENT C	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
Total (37 CFR 1.16(c))	*	Minus **	=
Independent (37 CFR 1.16(b))	*	Minus ***	=
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(d))			

RATE	ADDI-TIONAL FEE
x \$ =	
x =	
+ =	
TOTAL	
ADDIT. FEE	

RATE	ADDI-TIONAL FEE
x \$ =	
x =	
+ =	
TOTAL	
ADDIT. FEE	

\* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

\*\* If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

\*\*\* If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case.  
 Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

1. *Chlorophyll a* (Chl a) is the primary photosynthetic pigment in most plants and algae. It is a green pigment that absorbs light energy in the blue and red regions of the visible spectrum. Chl a is essential for the light-dependent reactions of photosynthesis, where it converts light energy into chemical energy.

2. *Chlorophyll b* (Chl b) is an accessory pigment found in many green plants and algae. It is a yellow-green pigment that absorbs light energy in the blue and orange-red regions of the visible spectrum. Chl b transfers the absorbed energy to Chl a for use in photosynthesis.

3. *Carotenoids* are a group of pigments that include carotenes and xanthophylls. They are responsible for the yellow, orange, and red colors seen in autumn foliage. Carotenoids absorb light energy in the blue and green regions of the visible spectrum and transfer the energy to Chl a. They also play a role in protecting the photosynthetic apparatus from damage by reactive oxygen species.

4. *Xanthophylls* are a subclass of carotenoids that are primarily responsible for the yellow color of autumn leaves. They absorb light energy in the blue and green regions of the visible spectrum and transfer the energy to Chl a. Xanthophylls also play a role in photoprotection, helping to dissipate excess light energy as heat.

5. *Anthocyanins* are water-soluble pigments that are responsible for the red, purple, and blue colors seen in many plants. They are not directly involved in photosynthesis but can play a role in protecting the plant from environmental stressors such as UV radiation and herbivory.

Atty Dkt: 11321-P011C1D8

Serial No: To Be Assigned  
(division of application  
Serial No. 10/000,746)

Filed: HERewith

Group Art Unit: 2881(anticipated)

Prior Examiner: Jack I. Berman  
703.308.4849

U.S. Patent and Trademark Office  
BOX: PATENT APPLICATION  
Washington, D.C. 20231

"EXPRESS MAIL" MAILING LABEL

Number: EL765760000US

Pursuant to 37 C F R. § 1.10, I hereby certify that I am personally depositing this paper or fee with the United States Postal Service "Express Mail Post Office to Addressee" service on the date indicated above in a sealed envelope (a) having the above-numbered Express Mail label and sufficient postage affixed, and (b) addressed to the U.S. Patent and Trademark Office, Box: Patent Application, Washington, D.C. 20231.

12/21/01      Wanda Alexander Warren  
Date                      Signature

Wanda Alexander Warren  
Printed Name

**REQUEST FOR FILING DIVISIONAL APPLICATION**  
**UNDER 37 C.F.R. § 1.53(b)**

This is a request for filing a divisional application under Rule 53(b) (37 C.F.R. § 1.53(b)) of co-pending prior application Serial No. 10/000,746, filed on November 30, 2001 entitled "MACROSCOPICALLY MANIPULABLE NANOSCALE DEVICES MADE FROM NANOTUBE ASSEMBLIES" which is a continuation of application Serial No. 09/242,040 filed on September 13, 1999 which is the 35 U.S.C. § 371 national application of International Application Number PCT/US97/13896 as originally filed on August 8, 1997, which designated the United States.

- ☒ 1. Enclosed is a copy of the co-pending prior application Serial No. 10/000,746 filed on November 30, 2001 which is a continuation of Serial No. 09/242,040 filed on September 13, 1999 which is the 35 U.S.C. § 371 national application of

International Application Number PCT/US97/13896 as originally filed on August 8, 1997, which designated the United States, claiming priority to provisional application Serial No. 60/023,732 filed on August 8, 1996, including the specification, claims, drawings, and declaration. The undersigned hereby incorporates co-pending prior continuation application Serial No. 10/000,746, prior application Serial No. 09/242,040, International Application Number PCT/US97/13896, and provisional application Serial No. 60/023,732 herein by reference and verifies that the enclosed papers are a copy of the co-pending prior continuation application Serial No. 10/000,746 as originally filed and identified above, that no amendments (if any) referred to in the declaration filed to complete the prior application introduced new matter therein, and further that this statement was made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statement may jeopardize the validity of the application or any patent issuing thereon.

- (a) ☒ The inventorship is the same as co-pending prior continuation application Serial No. 10/000,746.
- (b) ☐ Deletion of inventor(s). Signed statement attached deleting inventor(s) named in the prior application, see 37 C.F.R. § 1.63(d)(2) and 1.33(b).
- (c) ☐ Priority of foreign patent application number \_\_\_\_\_, filed \_\_\_\_\_ in \_\_\_\_\_ is claimed under 35 U.S.C. § 119(a)-(e). The certified copy:  
☐ is enclosed.  
☐ has been filed in the prior Application Serial No. \_\_\_\_\_

- ☐ 2. The Assistant Commissioner is requested to grant Applicants a filing date in accordance with Rule 1.53, and supply Applicants with a Notice of Missing Parts in due course, in accordance with the provisions of Rule 1.53(f).

- ☒ 3. Enclosed is a check in the amount of \$370.00 to cover the filing fee as calculated below and the fee for any new claims added in the Preliminary Amendment referred to in Part No. 9 below.

**CLAIMS FOLLOWING ENTRY OF PRELIMINARY AMENDMENT**

FOR	NUMBER FILED	NUMBER EXTRA	RATE	FEE
Basic Fee -----				\$370.00
Total Claims	10- 20 =	0 ×	\$9 =	\$0.00
Independent Claims	3- 3 =	0 ×	\$42 =	\$0.00
Multiple Dependent Claim(s) -----				\$0.00
<b>TOTAL FILING FEES:</b>				<b>\$370.00</b>

- ☒ 4. Applicant is entitled to Small Entity Status for this application.
- ☐ (a) A small entity statement is enclosed.
- ☒ (b) A small entity statement was filed in the prior nonprovisional application and such status is still proper and desired.
- ☒ 5. If the check is missing or insufficient, the Commissioner is hereby authorized to charge any fees under 37 C.F.R. §§ 1.16 and 1.17 which may be required for any reason relating to this application, or credit any overpayment, to Winstead Sechrest & Minick Deposit Account No. 23-2426 referencing 11321-P011C1D8.
- ☐ 6. Enclosed is a copy of the current Power of Attorney in the prior application.

IN RE: APPLICATION S.N. TBA  
REQUEST FOR FILING DIVISIONAL APPLICATION UNDER 37 C.F.R. § 1.53(b)

- ☒ 7. Address all future communications to:
- Hugh R. Kress  
WINSTEAD SECHREST & MINICK P.C.  
2400 Bank One Center  
910 Travis Street  
Houston, Texas 77002  
(713) 650-2714 (voice)  
(713) 650-2400 (fax)
- ☒ 8. The prior application is presently assigned to William Marsh Rice University.
- ☒ 9. Enclosed is a Preliminary Amendment. Any additional fees incurred because of the Preliminary Amendment are included in the check at No. 3 above and said fee has been calculated after calculation of claims and after amendment of claims by the Preliminary Amendment.
- ☒ 10. Cancel in this application claims 1-83 of the prior application before calculating the filing fee.
- ☒ 11. This application is a division of co-pending prior application Serial No. 10/000,746, filed on November 30, 2001, which is a continuation of prior application Serial No. 09/242,040 filed on September 13, 1999, which is the 35 U.S.C. § 371 national application of International Application Number PCT/US97/13896 filed on August 8, 1997, which designated the United States, claiming priority to provisional U.S. patent application Serial Number 60/023,732 filed on August 8, 1996. Each of the foregoing applications is commonly assigned to the assignee of the present invention and is hereby incorporated herein by reference in its entirety.
- This application discloses subject matter related to the subject matter of U.S. patent application Serial Number 09/380,545, filed on September 3, 1999 in the name of Richard E. Smalley et al., entitled "Carbon Fibers Formed From Single-

Wall Carbon Nanotubes,” which application is commonly assigned to the assignee of the present invention and hereby incorporated herein by reference in its entirety.--

- ☐ 12. Enclosed are formal drawings.
- ☐ 13. An Information Disclosure Statement (IDS) is enclosed.
- ☐ (a) PTO/SB/08A.
- ☐ (b) Copies of IDS citations.
- ☐ 14. Transfer the sequence information, including the computer readable form previously submitted in the parent application, Serial No. \_\_\_\_\_ filed \_\_\_\_\_, for use in this application. **Under 37 C.F.R. § 1.821(e), Applicant states that the paper copy of the sequence listing in this application is identical to the computer readable copy in parent application Serial No. \_\_\_\_\_ filed \_\_\_\_\_. Under 37 C.F.R. § 1.821(f), Applicant also states that the information recorded in computer readable form is identical to the written sequence listing.**
- ☐ 15. Other: \_\_\_\_\_.
- ☒ 16. Return Receipt Postcard (should be specifically itemized).

Respectfully submitted,

Date: 21-DEC-2001

Hugh R. Kress  
Hugh R. Kress  
Reg. No. 36,574  
WINSTEAD SECHREST & MINICK P.C.  
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ATTORNEY FOR ASSIGNEE